

IN THE CLAIMS:

1. A method of receiving a message on a digital control channel for use in a cellular messaging network, comprising the following steps:

5 (A) receiving voice channel assignment signals related to the assignment of voice channels and short messaging signals based on the message from the digital control channel;

(B) distinguishing between the voice channel assignment signals and the short messaging signals; and

10 (C) discarding the voice channel assignment signals.

2. The method of claim 1, wherein:

the voice channel assignment signals and the short messaging signals are time-division multiplexed in the digital control channel.

15 3. The method of claim 1, wherein step (A) includes the step:

20 demultiplexing the digital control channel.

25 4. The method of claim 1, further comprising the step:

paging a receiver in the cellular messaging network using the short messaging signals.

5. A base station retransmitter for use with a digital control channel, comprising:

means for connecting to a switching controller and receiving a modulated carrier signal from the switching controller;

an internal circuit coupled for receiving the modulated carrier signal, the internal circuit comprising:

means for demodulating the modulated carrier signal to generate a multiplexed digital signal,

means for demultiplexing the multiplexed digital signal to generate voice channel assignment signals and short messaging signals, and

means for discarding the voice channel assignment signals.

6. The base station retransmitter of claim 5, wherein: the multiplexed digital signal is presented as a series of one or more frames.

7. The base station retransmitter of claim 5, further comprising:

a buffer memory coupled to the means for demodulating which is operable to generate the multiplexed digital signal in response to a timing recovery signal.

8. The base station retransmitter of claim 7, further comprising:

a means, coupled to the buffer memory, for generating a timing recovering signal.

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9. The base station retransmitter of claim 5, further comprising:

an antenna for broadcasting the short messaging signals.

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10. A cellular messaging network, comprising:

a switching controller operatively coupled to the wireless telephone network;

one or more base station micro/picocell retransmitters operatively coupled to the switching controller;

one or more receivers operatively coupled to the one or more base station micro/picocell transmitters by way of a digital control channel;

each base station micro/picocell retransmitter

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means for connecting to the switching controller and receiving a modulated carrier signal from the switching controller,

25 an internal circuit coupled for receiving the modulated carrier signal, the internal circuit comprising:

means for demodulating the modulated carrier signal to generate a multiplexed digital signal,

means for distinguishing between signals related to the assignment of voice channels and other signals comprising short messaging information in the multiplexed digital signal, and

means for discarding the signals related to the assignment of voice channels.

11. The network of claim 10, wherein:

the multiplexed digital signal is presented as a series of one or more frames.

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12. The network of claim 10, wherein:

the signals related to the assignment of voice channels and the other signals comprising short messaging information are time-division multiplexed in the multiplexed digital signal.

13. The network of claim 10, wherein:

each receiver is portable.

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14. A method of signal processing to determine a message in a multiplexed digital signal, the multiplexed digital signal including a voice channel assignment subchannel for voice channel assignment signals, and a short messaging subchannel for

short messaging signals, the method comprising the following steps:

(A) receiving the multiplexed digital signal;

5 generate a short messaging signal and a voice channel assignment signal;

(C) screening the voice channel assignment signal from further processing; and

(D) determining the message from the short messaging

10 signal.

15. The method of claim 14, wherein:

the multiplexed digital signal is presented in a TDMA format.

16. The method of claim 14, wherein:

the voice channel assignment subchannel and the short messaging subchannel are time-division multiplexed in the digital signal.

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17. The method of claim 14, wherein:

the multiplexed digital signal includes a series of one or more frames.

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